

## PATENT ABSTRACTS OF JAPAN

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## (54) BODY MOTION ANALYSIS DEVICE

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide a new body motion analysis device and a new body motion analysis method.

SOLUTION: This body motion analysis device 10 includes a computer 12 to which an image of a dancing subject is inputted. The computer 12 extracts a human silhouette image based on the inputted image. Then, the computer 12 detects respective parts of the subject from the person silhouette image by color processing and converts the person silhouette image into a skeleton image. By Hough transformation of the skeleton image, the respective parts are approximated linearly, and the respective parts are time-tracked by a Kalman filter. SVD is applied to the time-tracked Hough parameter, and motion characteristic quantity of the body motion is extracted. Subsequently, by Fourier transformation of time-series data of the extracted motion characteristic quantity, frequency analysis is carried out. In this way, a rhythm factor of the body motion of the subject as a whole can be extracted.

